[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-0461; Directorate Identifier 2014-NM-159-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Airbus Model A319, A320, and A321 series airplanes. This proposed AD was prompted by a report that a main landing gear (MLG) door could not be closed due to rupture of the actuator fitting. Later reports indicated that the forward monoblock fitting of the MLG door actuator (referred to as the nerve area) could be damaged after rupture of the actuator fitting. This proposed AD would require repetitive inspections of the MLG door actuator fitting and its components for cracking, and corrective actions if necessary. This proposed AD would also require eventual replacement of all affected MLG door actuator fittings with new monoblock fittings, which would terminate the repetitive inspections. We are proposing this AD to prevent rupture of the door actuator fittings, which could result in detachment of an MLG door and subsequent exterior damage and consequent reduced structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
 - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West
 Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC
 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30,
 West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE.,
 Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airwortheas@airbus.com; Internet http://www.airbus.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-0461; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal

holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2016-0461; Directorate Identifier 2014-NM-159-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0166, dated July 16, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Airbus Model A319, A320, and A321 series airplanes. The MCAI states:

On one A320 aeroplane, it was reported that one of the main landing gear (MLG) doors could not be closed. Investigations revealed the rupture of the actuator fitting at the actuator attachment area on the door side. The MLG door is attached to the aeroplane by 2 hinge fittings.

This condition, if not corrected, could, under certain circumstances, lead to detachment of a MLG door from the aeroplane, possibly resulting in damage to the aeroplane, and/or injury to persons on the ground.

Prompted by these findings, [Direction Générale de l'Aviation Civile] France issued * * * [an AD] * * *, to require a MLG door actuator fitting inspection for cracks and to check the grain direction on a batch of aeroplanes.

Subsequently, DGAC France issued * * * [an AD], retaining the requirements of DGAC France AD * * *, which was superseded, to require an inspection of the lower part of the MLG door actuator fitting.

After that [DGAC] AD was issued, additional investigations revealed that damage could also appear on the nerve area [of the forward monoblock fitting], in the upper part of the MLG door actuator fitting in the area of the hinge.

Consequently, DGAC France issued F2003-434, dated December 10, 2003 [http://ad.easa.europa.eu/ad/F-2003-454] (EASA approval 2003-1436), retaining the requirements of [a] DGAC France AD * * *, which was superseded, to require

additional repetitive inspections. That [DGAC] AD also included an optional terminating action, by replacing the MLG door actuator fittings in accordance with the instructions of Airbus Service Bulletin (SB) A320-52-1073.

Since that [DGAC] AD was issued, in the framework of the extended service goal campaign, it has been decided to make replacement of the MLG door actuator fittings a required modification.

For the reasons described above, this AD retains the requirements of DGAC France AD F-2003-434, which is superseded, and requires replacement of the MLG door actuator fittings with new monoblock fittings, which constitutes terminating action for the repetitive inspections.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-0461.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletins A320-52-1073, Revision 05, dated September 28, 2006; A320-52A1086, Revision 01, dated September 10, 1999; and A320-52-1096, Revision 02, dated July 12, 2006. This service information describes procedures for inspections of the MLG door actuator fitting and its components for cracking, and corrective actions if necessary. This service information also describes procedures for replacement of all affected MLG door actuator fittings with new monoblock fittings. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Difference between Proposed AD and Service Information

Unlike the procedures described in Airbus Service Bulletin A320-52-1096, Revision 02, dated July 12, 2006, this proposed AD would not permit further flight if cracks are detected in the MLG door actuator fittings. We have determined that, because of the safety implications and consequences associated with that cracking, any cracked MLG door actuator fittings must be repaired or modified before further flight. This difference has been coordinated with the EASA.

Costs of Compliance

We estimate that this proposed AD affects 71 airplanes of U.S. registry.

We also estimate that it would take about 38 work-hours per product to comply with the inspection requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost for the inspection specified in this proposed AD on U.S. operators to be \$229,330, or \$3,230 per product.

We estimate that it would take about 98 work-hours per product to comply with the MLG actuator replacement requirements of this proposed AD. Required parts would cost about \$6,258 per product. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost for the actuator replacement specified in this proposed AD on U.S. operators to be \$1,035,748, or \$14,588 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
 - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus: Docket No. FAA-2016-0461; Directorate Identifier 2014-NM-159-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes, certificated in any category, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, all manufacturer serial numbers.

- (1) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (2) Model A320-211, -212, -214, -231, -232, and -233 airplanes.
- (3) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Reason

This AD was prompted by a report that a main landing gear (MLG) door could not be closed due to rupture of the actuator fitting. Later reports indicated that the forward monoblock fitting of the MLG door actuator (referred to as the nerve area) could be damaged after rupture of the actuator fitting. We are issuing this AD to prevent rupture of the door actuator fittings, which could result in detachment of an MLG door and subsequent exterior damage and consequent reduced structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Inspections of MLG Door Actuator Fittings

For airplanes equipped with MLG door actuator fittings having part number (P/N) D52880224 000/001 that were installed before the first flight of the airplane on MLG doors identified in paragraphs (g)(1) and (g)(2) of this AD, as applicable: Within 500

flight hours since the most recent high frequency eddy current (HFEC) inspection done as specified in Airbus Service Bulletin A320-52A1086, Revision 01, dated September 10, 1999, or within 30 days after the effective date of this AD, whichever occurs later, perform an HFEC inspection for cracking of the MLG door fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52A1086, Revision 01, dated September 10, 1999. Repeat the inspection thereafter at intervals not to exceed 500 flight hours, except as provided by paragraph (i)(1) of this AD.

- (1) Left-hand MLG doors with S/Ns 1206 through 1237 inclusive, 1239 through 1247 inclusive, and 1249 through 1251 inclusive.
- (2) Right-hand MLG doors with S/Ns 1208 through 1239 inclusive, 1241 through 1249 inclusive, and 1251.

(h) Repetitive Inspections of MLG Hinge and Nerve Areas

For airplanes equipped with MLG door actuator fittings having

P/N D52880224 000/001 or D52880235 000/001: Within 400 flight cycles after the

effective date of this AD, or before the accumulation of 9,000 total flight cycles since

first flight of the airplane, whichever occurs later, perform an HFEC inspection of both

hinge and nerve areas of the MLG doors for cracking, in accordance with the

Accomplishment Instructions of Airbus Service Bulletin A320-52-1096, Revision 02,

dated July 12, 2006. Repeat the inspection thereafter at intervals not to exceed 800 flight

cycles.

(i) Inspections/Corrective Actions

- (1) If any cracking is found during any inspection required by paragraph (g) or (h) of this AD: Before further flight, replace the affected MLG door actuator fittings with new monoblock fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1073, Revision 05, dated September 28, 2006. Accomplishing this replacement terminates the repetitive inspections required by paragraphs (g) and (h) of this AD.
- (2) If, during any HFEC inspection required by paragraph (g) of this AD, no cracking is found: At the time specified in paragraph (g) of this AD, perform a low frequency eddy current (LFEC) inspection to determine the grain direction of the raw material of each MLG actuator fitting, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52A1086, Revision 01, dated September 10, 1999.
- (i) If the grain direction of the raw material is correct, the repetitive inspections required by paragraph (g) of this AD may be terminated.
- (ii) If the grain direction of the raw material is incorrect, repeat the HFEC inspection required by paragraph (g) of this AD at the time specified in paragraph (g) of this AD. Replacement of the MLG door actuator fittings with new monoblock fittings as specified in paragraph (i)(1) of this AD, terminates the repetitive inspections required by paragraphs (g) and (i) of this AD.

(j) MLG Door Actuator Fitting Replacement

For airplanes equipped with any MLG door actuator fitting having P/N D52880102000 and P/N D52880102001, or P/N D52880220000 and P/N D52880220001, or P/N D52880224000 and P/N D52880224001, or P/N D52880235000 and P/N D52880235001: At the later of the times specified in paragraphs (j)(1) and (j)(2) of this AD, replace the MLG door actuator fittings with new monoblock fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1073, Revision 05, dated September 28, 2006. Accomplishing this replacement terminates the repetitive inspections required by paragraphs (g) and (h) of this AD.

- (1) Before the accumulation of 48,000 total flight cycles or 96,000 total flight hours, whichever occurs later since the first flight of the airplane; or
 - (2) Within 30 days after the effective date of this AD.

(k) Optional Terminating Action

Replacement of the MLG door actuator fittings with new monoblock fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1073, Revision 05, dated September 28, 2006, terminates the repetitive inspections required by paragraphs (g) and (h) of this AD.

(l) Airplanes Excluded from AD Requirements

For airplanes on which Airbus Modification 24903, 25372, or 36979 has been embodied in production, no action is required by this AD, provided that no MLG door

actuator fitting having any part number identified in paragraph (j) of this AD has been reinstalled on the airplane since first flight.

(m) Parts Installation Limitation

As of the effective date of this AD, no person may install a MLG door actuator fitting having any part number identified in paragraph (j) of this AD on any airplane.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

- (1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- (2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane

 Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA

Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2014-0166, dated July 16, 2014, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-0461.

(2) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airwortheas@airbus.com; Internet http://www.airbus.com. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. Issued in Renton, Washington, on January 20, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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